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10/656,462	09/05/2003	Richard Lee Smith	1225.14	8430

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EXAMINER

SOOHOO, TONY GLEN

ART UNIT PAPER NUMBER

1723

DATE MAILED: 08/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/656,462

Applicant(s)

SMITH, RICHARD LEE

Examiner

Tony G. Soohoo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 May 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7,9-21 and 25-34 is/are pending in the application.
- 4a) Of the above claim(s) 34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7,9-21 and 25-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### Claim interpretation

1. The claim language of claim 1 and its depending claims states: “a motor connected to at least one of said drive assemblies such that said motor engages said connected drive assembly *and further drives any other connected drive assemblies*” (emphasis added italics). It is noted that the scope of the claims fail to positively and distinctly claim that a motor engages other drive assemblies other than that of the “[at least] one drive assembly”. (see in contradistinction of claim 10). When the scope of the claim is read in its broadest reasonable interpretation so as to encompass a single motor connected to one of a respective drive assembly, the claim language of “*and further drives any other connected drive assemblies*” provides little patentable distinction since the motor is only connected to one drive assembly and not to any other. It is strongly suggested that applicant consider the language of “a motor connected to more than one of said drive assemblies” to avoid the scope of invention in which a grounds of rejection is made with plural respective pumps connected to plural respective pump drive assemblies.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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3. Claims 1 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Titone et al 4234007 (newly cited).

4. The Titone et al 4234007 reference discloses a liquid mixing device which is fully capable to mix any liquid desired which is placed in the solution tanks 14, 20, pumps assemblies 18, 24, and a manifold 46, and a motor which is used to couple and engage both to drive pumps 18 and 24. It is noted that each figure shows conduits and inherently have couplings to couple the conduits with the tanks, with the pumps, and such that a fluid connection is provided into a device of fluid handling system.

5. Claims 1-2, 4-7, 9, 12, are rejected under 35 U.S.C. 102(b) as being anticipated by Moffett et al 5980836.

Moffett discloses a liquid mixing device which is fully capable to mix any liquid desired which is placed in the solution tanks 10, 12, 14, 16, pumps assemblies 68, 36, 44, 24, 102, 84, and a manifold (in figure 1) 20, at 52, at 76, at 78, (in figure 2) 20, 20A, 78, 78A, 76, 76A, (or in figure 3) 78, 106, 20, a drain assembly see figures labeled "drain". It is noted that each figure shows conduits and inherently have couplings to couple the conduits with the tanks, with the pumps, and with valves and drain such that a fluid connection is provide into a device of fluid handling system. With regards to claim 28 note that the tank 16 may be heated, column 2, line 65. It is also noted that the manner of use of the device is directed to a method of operation of the device and does not structurally distinguish the apparatus in a patentable sense and thus has been afforded little, if any patentable distinction.

With regard to claim 9 note that each pump 68, 36, 44, 224, 102, 84 includes a motor for driving each of the respective drive assembly capable of independent operation and that each motor engages each respective drive assembly. Since each motor has not been positively claimed in connected to another drive assembly, issues to a motor driving other drive assemblies are immaterial to the reading of the Moffett reference to the defined scope of the claims.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moffett et al 5980836.

The Moffett (et al) reference discloses all of the recited subject matter as defined within the scope of the claims with the exception of couplings capable of receiving a hose (claim 3) and the pump being a diaphragm pump (claim 11). It is noted that the Moffett reference teaches conduits, and it has been deemed that the Moffett reference would inherently have couplings, however is absent to the capability of couplings to connect hoses. It is old and well known in the art of fluid handling that hoses may be used as fluid conduits whereby it may provide a more flexible conduit for ease of installation. Accordingly, it is deemed that it would have been obvious to one of

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ordinary skill in the art to modify the device of Moffett et al such that the couplings are capable of connecting hoses together so that hoses may be used for ease of construction of the fluid handling system.

With regards to claim 11, in the art of pumps, the particular species of a diaphragm pump is old and well known as a structural functional equivalent of a pump to pump fluid. Accordingly, it is deemed that it would have been obvious to one of ordinary skill in the art to substitute the pumps of the Moffett reference with a particular choice of the functional equivalent pump species of a diaphragm pump, so that fluid is moved in a more efficient manner.

8. Claims 10, 15-21, 25, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moffett et al 5980836 in view of Grandberg et al 2244106 (newly applied, cited previously).

The Moffett (et al) reference discloses all of the recited subject matter as defined within the scope of the claims with the exception of also including one motor which "is connected to one of said drive assemblies such that said motor engages said one drive assembly thereby to drive each of said drive assemblies."

The Moffett reference discloses each one motor connected to a each respective drive assembly thereby the each drive assembly is driven.

The reference to Grandberg et al teaches that a pump control system may utilize a single motor 10 which connected to co-axially aligned drive assemblies 28, 29, 30

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upon the shaft between 11 and 12 which drive respective pumps 6,7,8, so as to provide convenient and precise proportional pumping of plural liquid ingredients.

In view of the teaching of the drive system of plural metering pumps of the Grandberg reference it is deemed that it would have been obvious to one of ordinary skill in the art to substitute for the plural respective pumps of the Moffett device with a single motor drive in connection to drive the plural pumps of the Moffett pumps so that the proportional metering of the supply fluids maybe provided in a more convenient and precise manner.

9. Claims 13-14, 26-27, 29-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moffett et al 5980836 in view of Bullard 3957203 and Atkinson 3074649.

The Moffett (et al) reference discloses all of the recited subject matter as defined within the scope of the claims with the exception of the system being 13-14 is mounted on a vehicle or mobile platform, with a cab, boom, or basket and a nozzle.

The Bullard 3957203 reference teaches that a mixed fluid material supplied in a tank 134 may be provided upon a mobile platform 12 and sprayed utilizing a boom 76 mounted nozzle 82.

The Atkinson reference teaches that a fluid delivery system from a tank 9, boom 3 and nozzle 1 may be operated from the cab at 53.

It is also noted that it is old and well known in the art of boom assemblies to provide a basket for an operator. In view of the Bullard and Atkinson references, it is

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deemed that it would have been obvious to one of ordinary skill in the art to provide for the mixing device of Moffett et al with a mount upon on a vehicle or mobile platform, with a cab, boom, or basket and a nozzle for the mixer tank device of Moffett et al so that the mixed fluid may be easily transported and delivered to particular location.

### ***Response to Arguments***

10. Applicant's arguments filed have been fully considered but they are not persuasive. Applicant argues that the claims distinguishes over the Moffett et al 5980836 and the combination of the prior art whereby applicant argues that a motor capable of engaging one or more of the drive assemblies of another pump, see page 17 last paragraphs of applicant's remarks. In response, the claim does not require the plural connection of a motor with "another" different driving assembly. The present attempt in the newly amended claim language presents suggests that the connection between "a motor" to operate to drive the (respective?) drive assembly, and a capability to drive other drive assemblies (if so connected). However does not positively claim a motor connected simultaneously to two drive assemblies since the scope of the language of "connected to at least one" is inclusive of and only requires "one" motor to be connected to a respective drive pump assembly to meet the language of the claim(s). No exclusive requirement one motor driving another drive of has been made with regards to the independent claim(s). Claim 9 reinforces this interpretation since it positively points out each pump has a corresponding driving motor.

11. Applicant argues that there is no reason to combine the secondary reference to Bullard and Atkinson. The Bullard reference and the Atkinson reference are cited to



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establish evidence of fact that it is old and well known to mount a dispensing device upon a platform and to have the platform be mobile. Additionally, it is cited to establish an evidence of fact that it is old and well known to utilize a boom, nozzles and arm assemblies and structure to provide a positionable fluid delivery of fluid from a tank mounted on a platform. Reasons for motivation to combine has been pointed out in section 8 above in the rejection for reasons so that the mixed fluid may be easily transported and delivered to particular location.

### **Conclusion**

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following disclose one motor driving plural pumps: Latham, Jr 3359910, and Rambin, Jr. 4341508.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tony G. Soohoo whose telephone number is (571) 272 1147. The examiner can normally be reached on 7-5PM, Tue-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker can be reached on 571-272-1151. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Tony G Soohoo  
Primary Examiner

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**TONY G. SOOHOO**  
**PRIMARY EXAMINER**